



# Spy Pond Edge Protection and Erosion Control Project

Town of Arlington, MA

Public Meeting #3

01 December 2016



# Agenda – Spy Pond

- Introductions (Conservation Commission)
- Project Location and Goals
- Existing Shoreline Conditions
- Preferred Concepts
- Next Steps
- Questions and Comments

# Project Location



# Project Goals

1. Preserve, stabilize & strengthen the pond's banks
2. Control bank erosion
3. Protect & enhance wildlife habitat
4. Control access to prevent unauthorized paths
5. Broaden & strengthen constituency groups
6. Increase quality & opportunity for water use
7. Promote stormwater infiltration along the shoreline
8. Implement environmental education

# Site Activities

## Activities

- Ball Playing
- Jogging & Walking
- Kayaking & Canoeing
- Fishing
- Picnicking & Gathering
- Children's Play
- Crew Team



# Shoreline Categorization

## STABLE

- Vegetated
- Uncompacted soils
- Controlled runoff
- Shallower slopes
- Controlled human use
- Hard or soft edge

VS.

## UNSTABLE

- Loss of stabilizing vegetation
- Compacted soils
- Uncontrolled runoff
- Steep slopes
- Uncontrolled human use

## Three Categories:

- Unstable
- Marginally Stable
- Stable

# Scannell Field

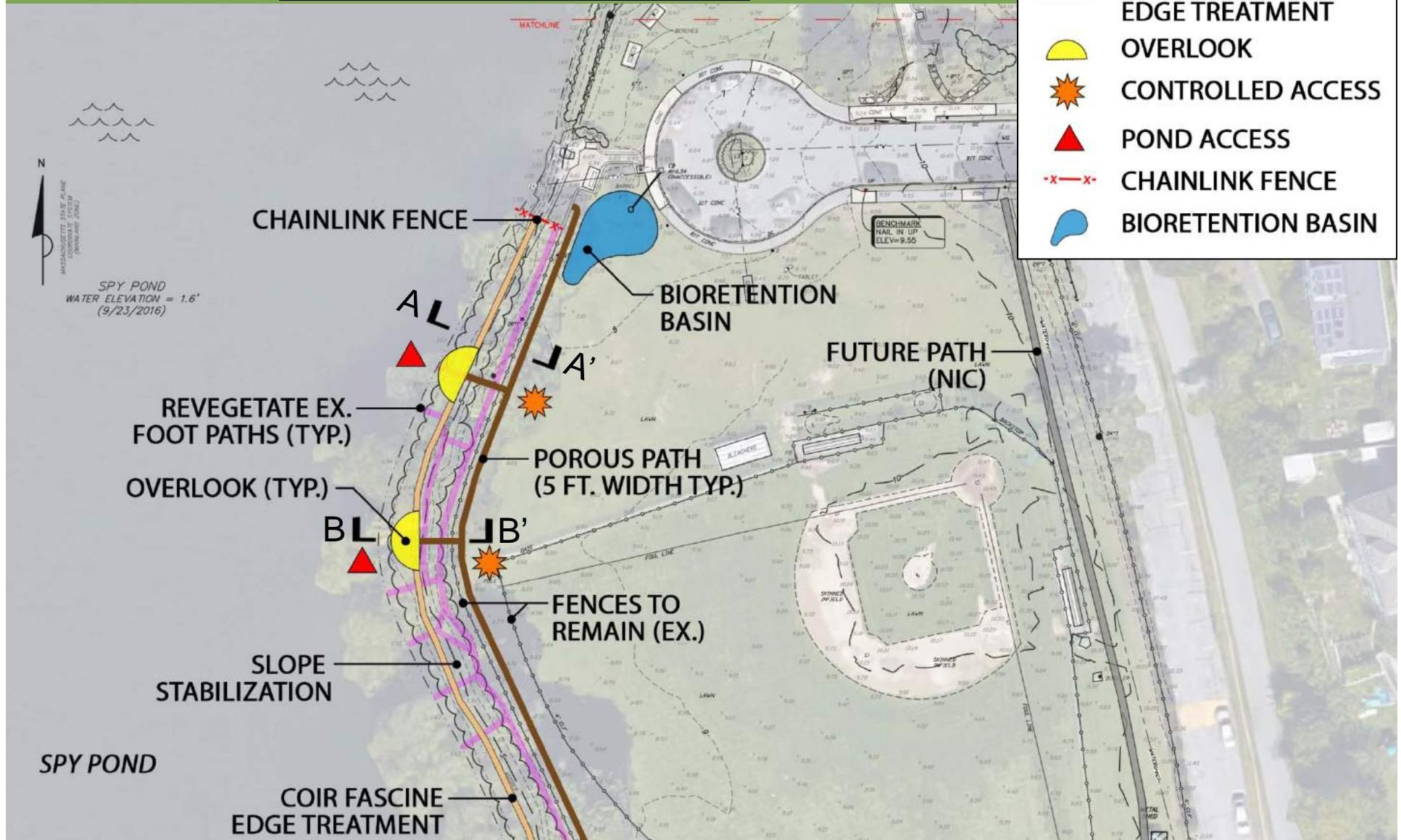


# Preferred Concept

## Scannell Field

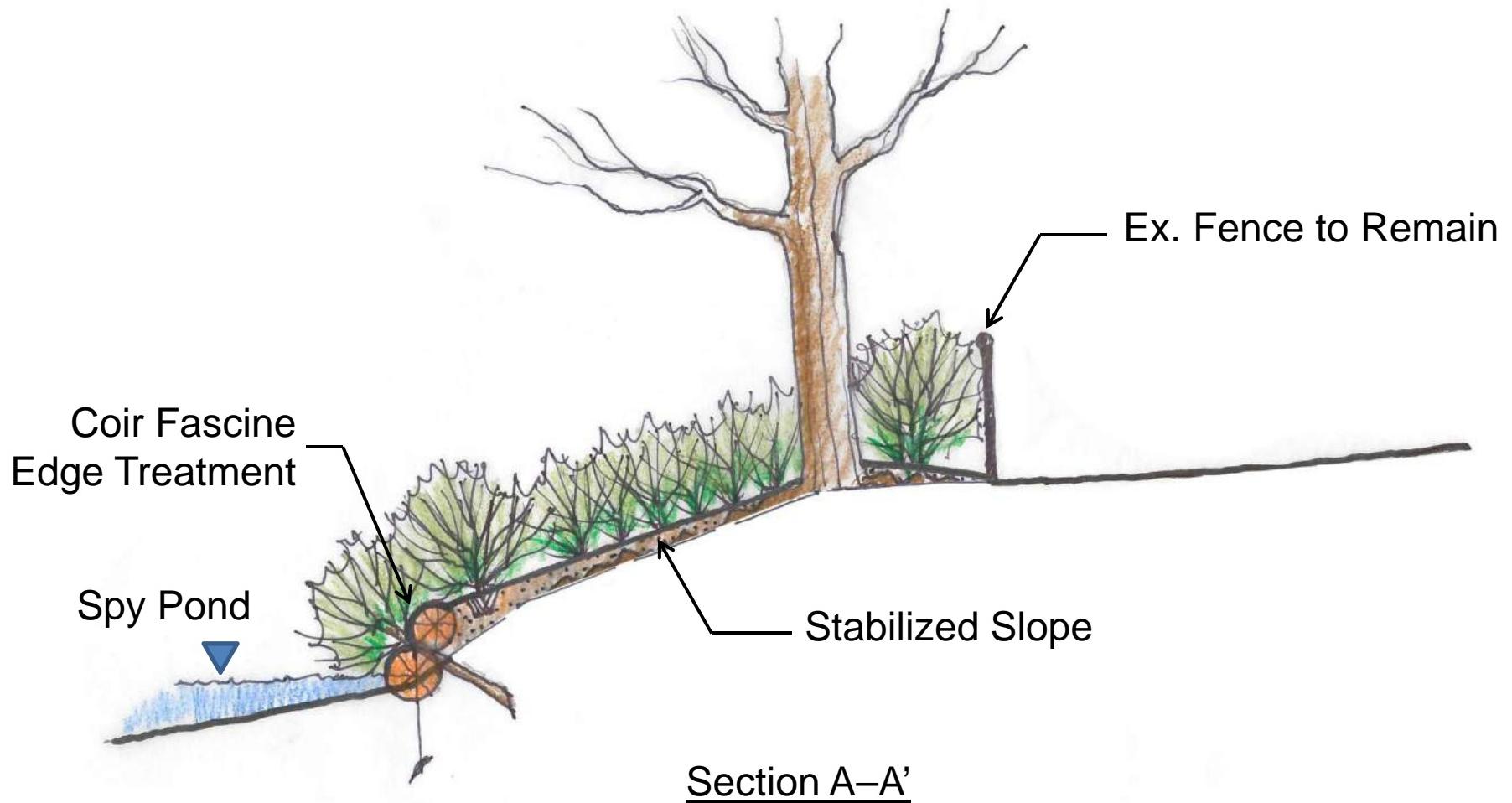
### LEGEND

- REVEGETATE EX. FOOT PATHS
- POROUS PATH
- POROUS PATH (NIC)
- COIR FASCINE EDGE TREATMENT
- OVERLOOK
- CONTROLLED ACCESS
- POND ACCESS
- CHAINLINK FENCE
- BIORETENTION BASIN



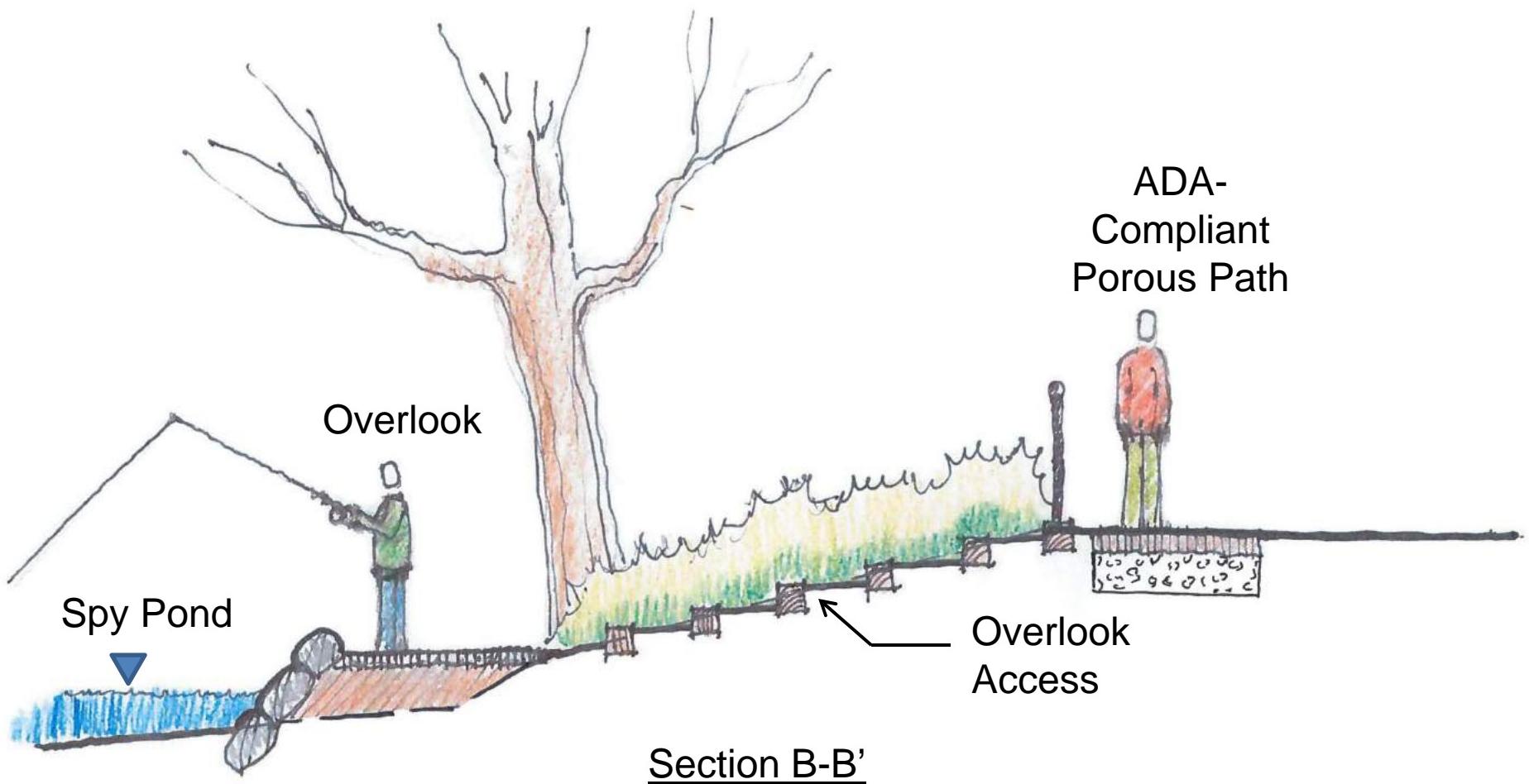
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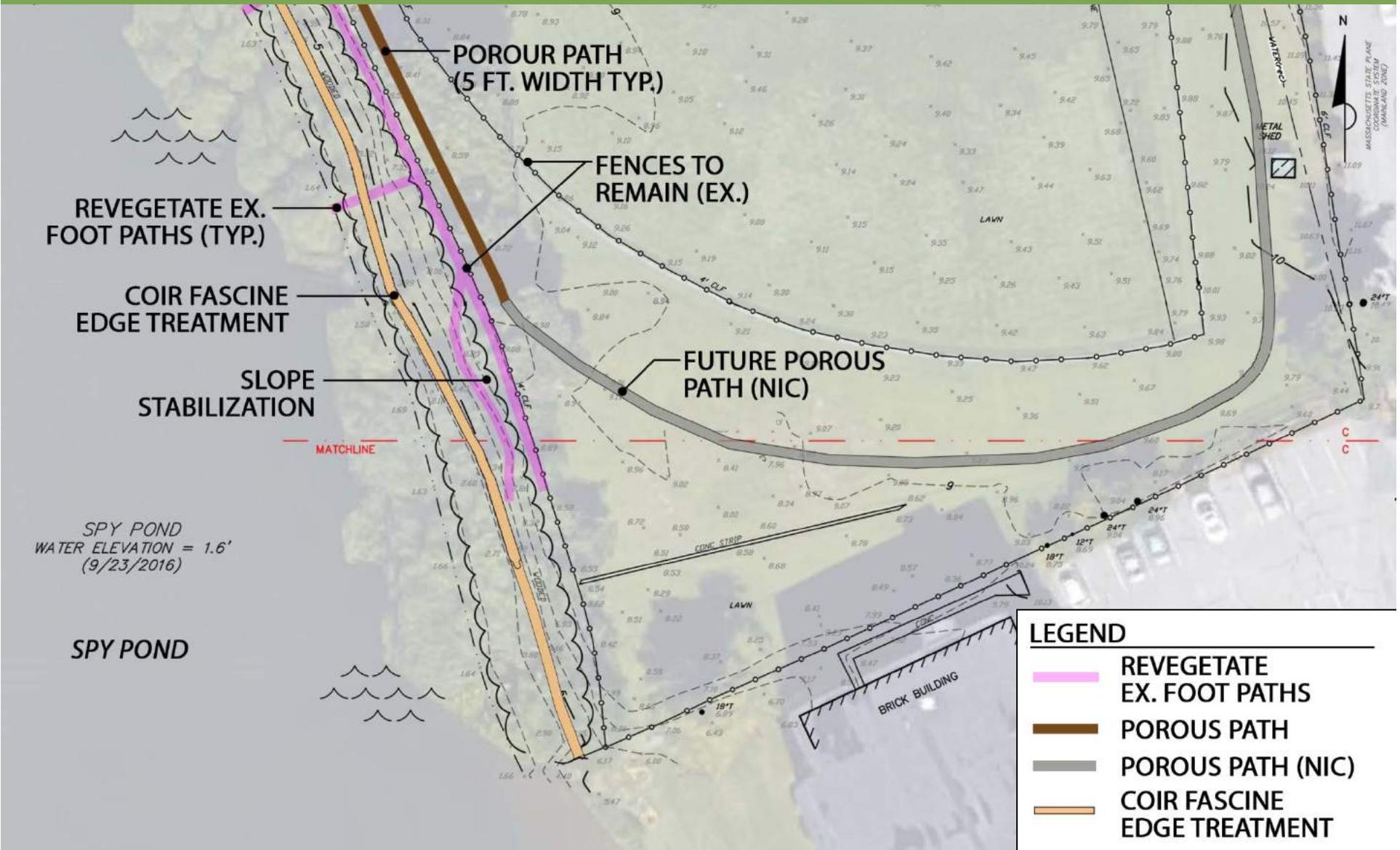
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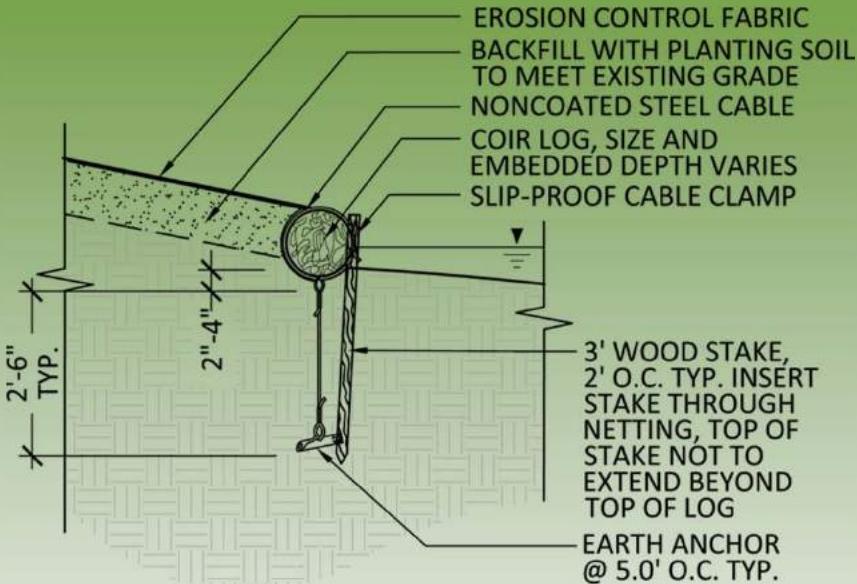


# Preferred Concept

## Scannell Field



# Coir Fascines



# Stormwater Management

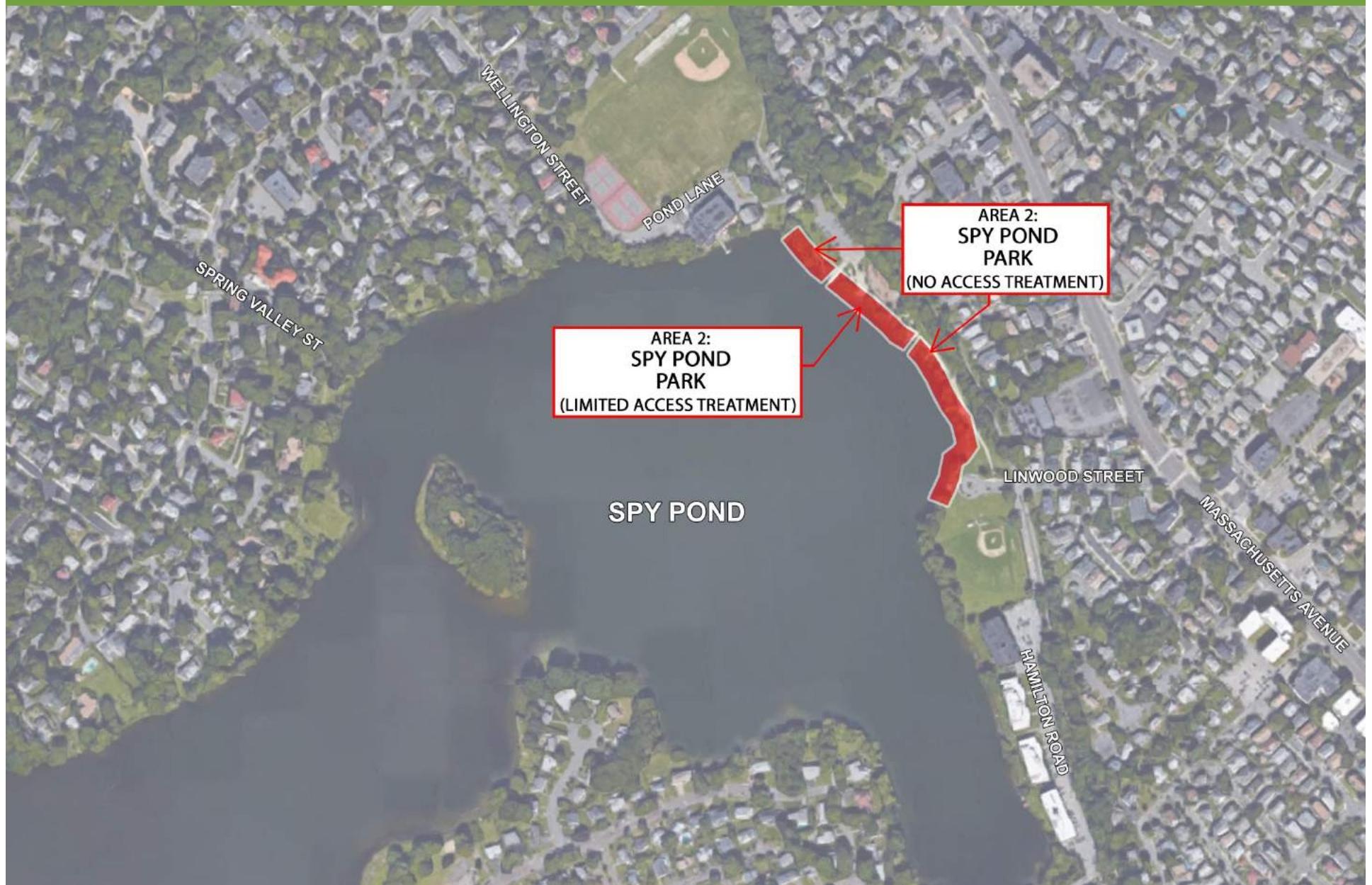
## Porous Pavement



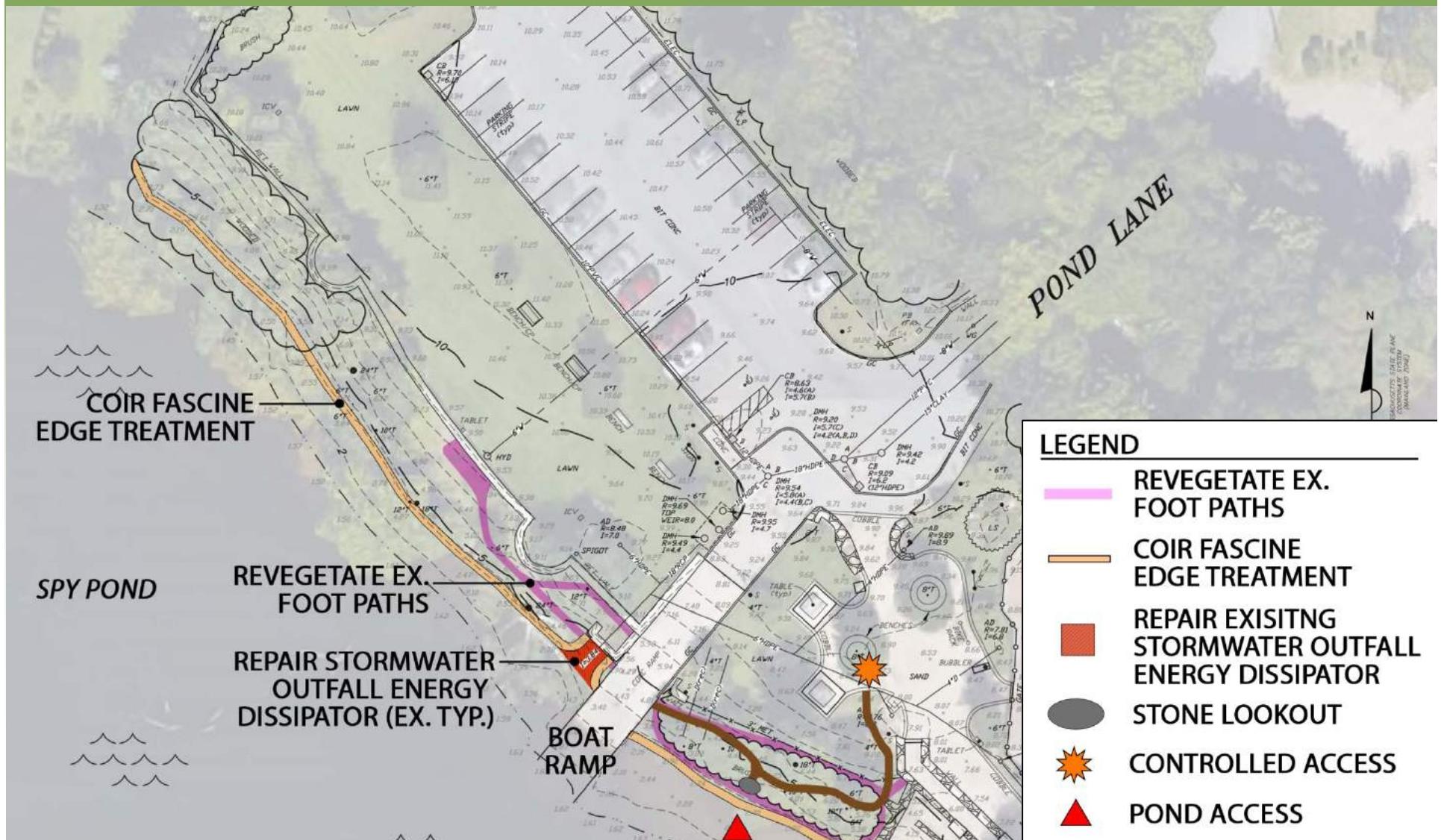
## Bioretention Basin



# Spy Pond Park

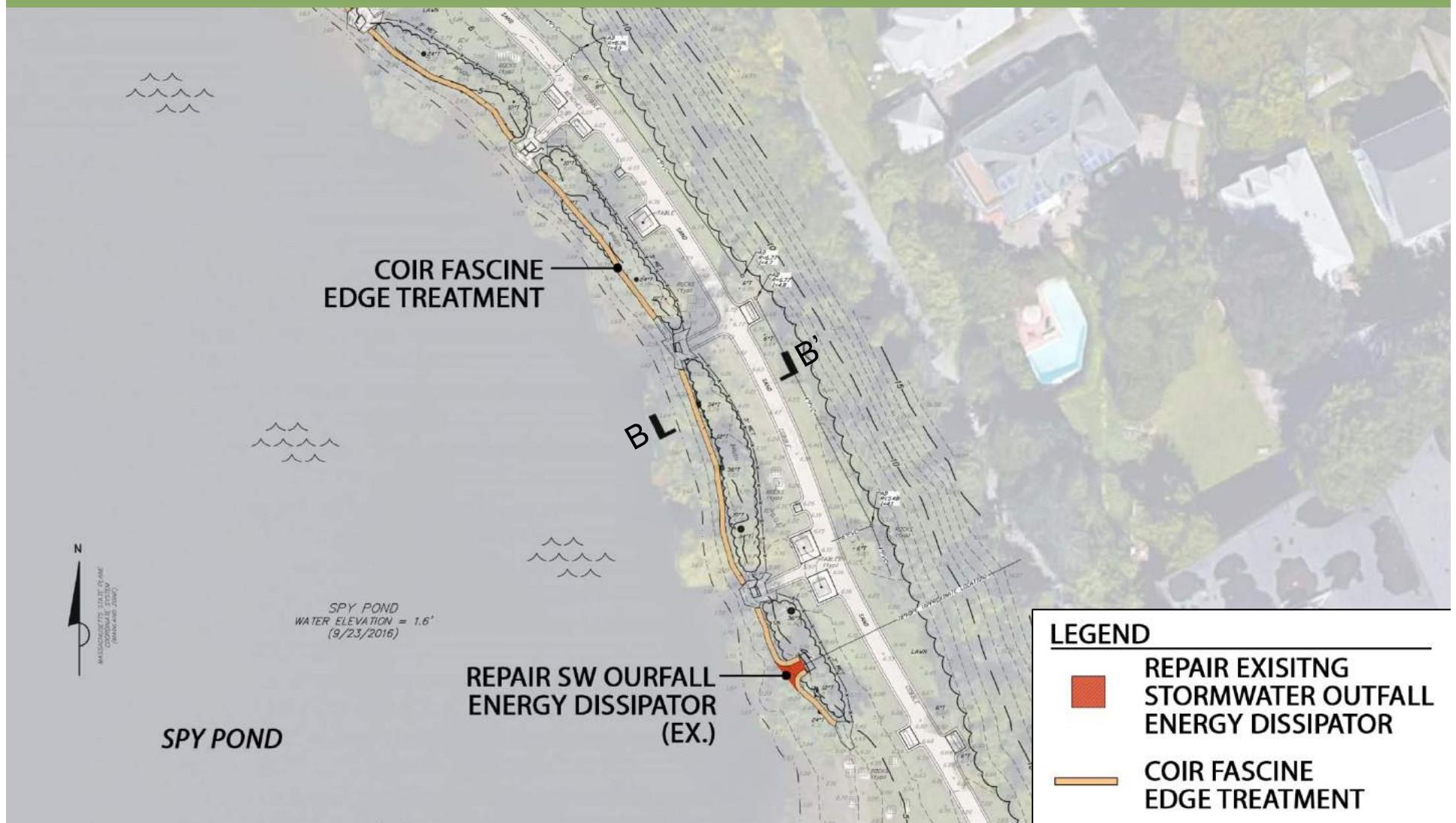


# Preferred Concept Spy Pond Park (No Access Treatment)



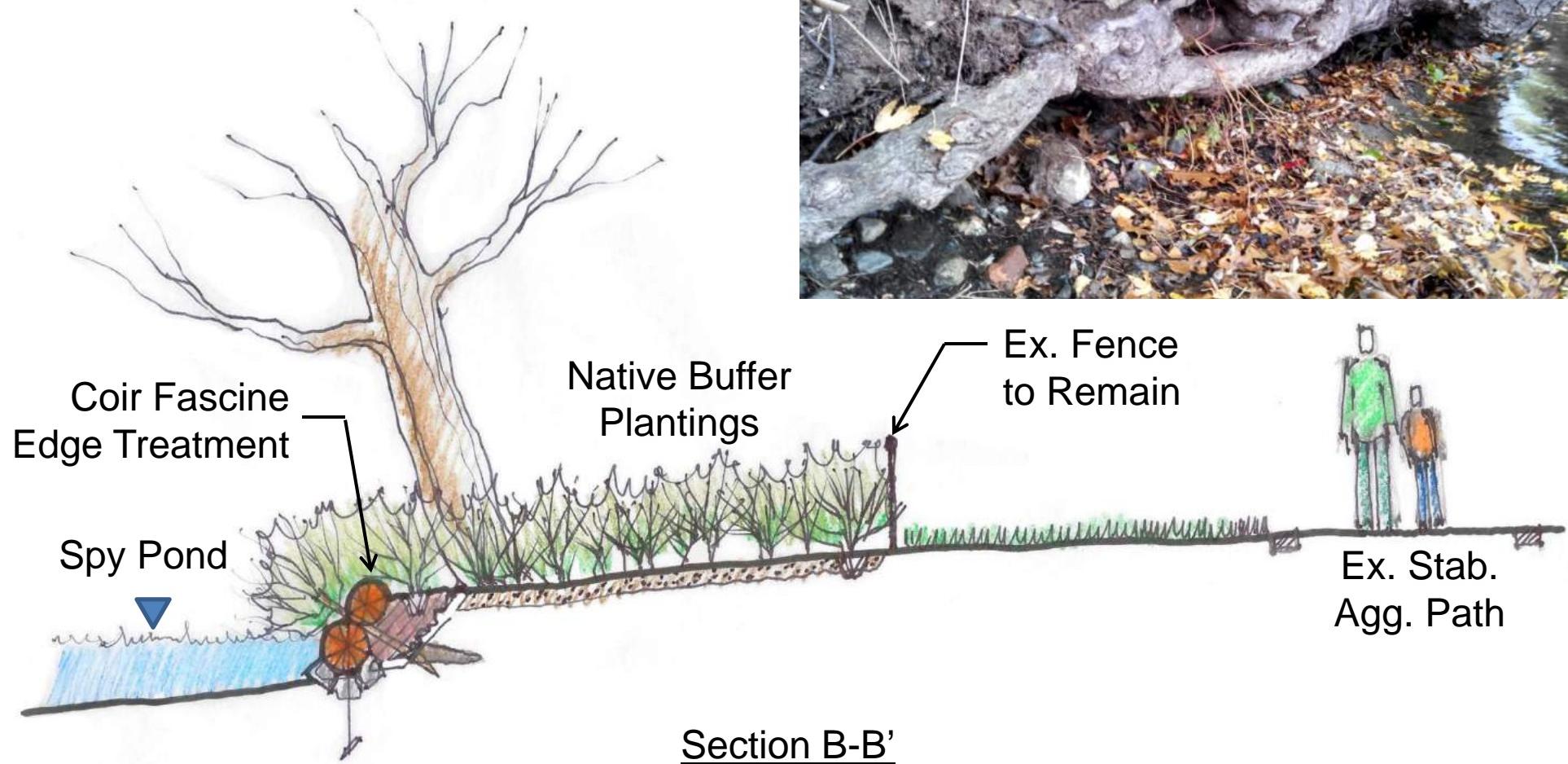
# Preferred Concept

## Spy Pond Park (No Access Treatment)



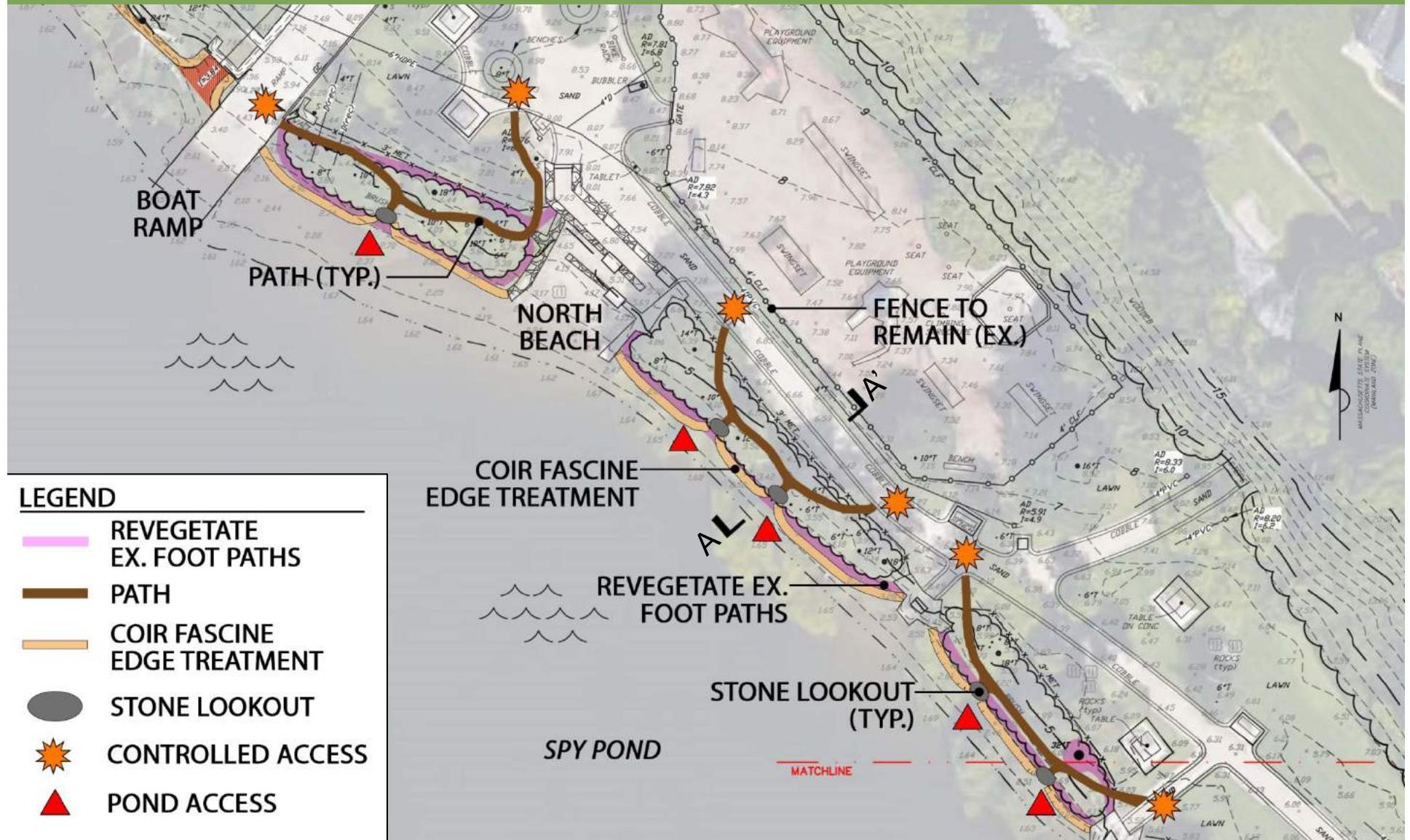
# Preferred Concept

## Spy Pond Park (No Access Treatment)



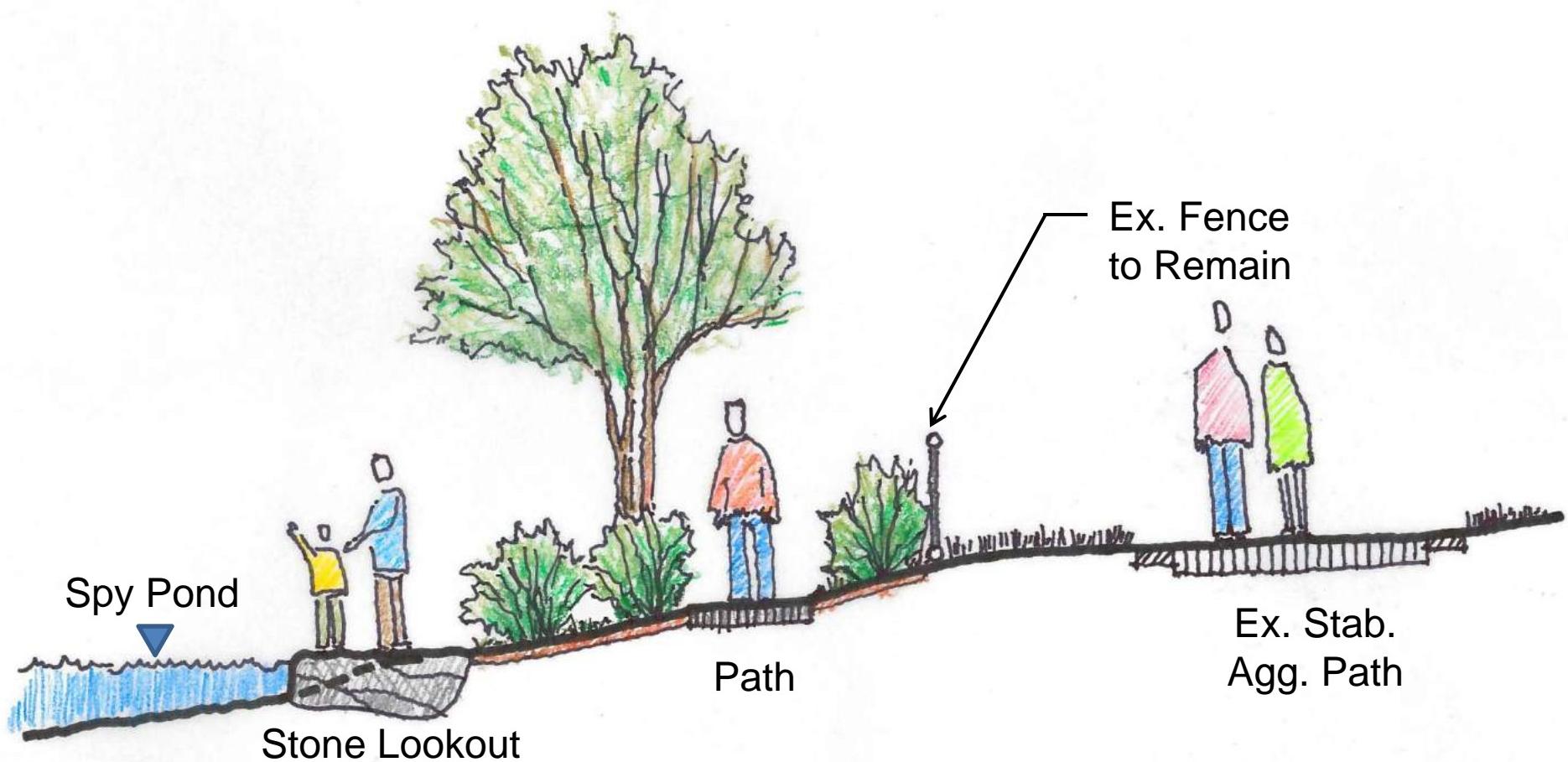
# Preferred Concept

## Spy Pond Park (Limited Access Treatment)



# Preferred Concept

## Spy Pond Park (Limited Access Treatment)



Section A-A'

# Educational Signage - Examples

 Fresh Pond Reservation  
Protecting the Cambridge Water Supply since 1889

## Stream C Woodland Restoration

### Area Features

- Native woodland wildlife habitat
- Wildlife nesting area
- Vegetated buffer

To protect this habitat for *all* to enjoy

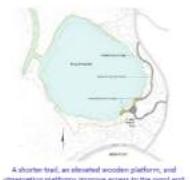
- Stay on roadway
- Keep dogs out

*Thank you for helping us protect the ecological functions of these water supply lands and their natural beauty*

Cambridge Water Board  
City of Cambridge Water Department  
250 Fresh Pond Parkway  
[www.cambridgema.gov/water](http://www.cambridgema.gov/water)

David Kaplan, Watershed Manager  
617-349-4799  
[dkaplan@cambridgema.gov](mailto:dkaplan@cambridgema.gov)

## Black's Nook Site Improvements



A shorter trail, an elevated wooden platform, and observation platforms improve access to the pond and protect environmentally sensitive resource areas.

**Construction Schedule:** Site improvements begin in the Fall 2010 and will be completed by Summer 2011.



**Black's Nook timber observation platforms**



**Plant community-based restoration and wetland restoration**



**Shoreline restoration and plant community-based  
woodland and wetland restoration**

To receive updates on current project work, email us at [fpr@cambridgema.gov](mailto:fpr@cambridgema.gov)



## Permanent



# Plant Establishment



Goose Exclusion Fence

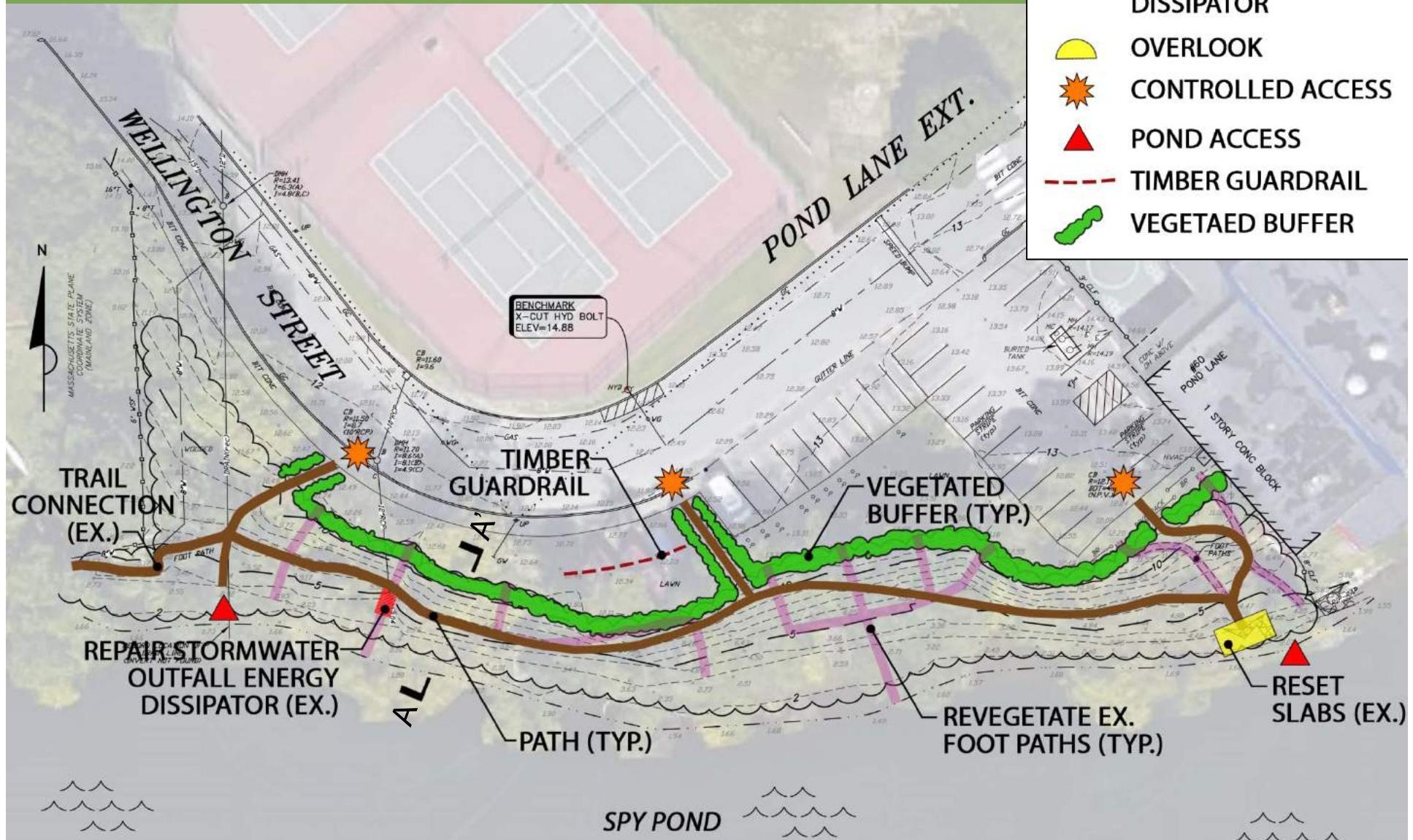


Establishment Fence

# Boys & Girls Club

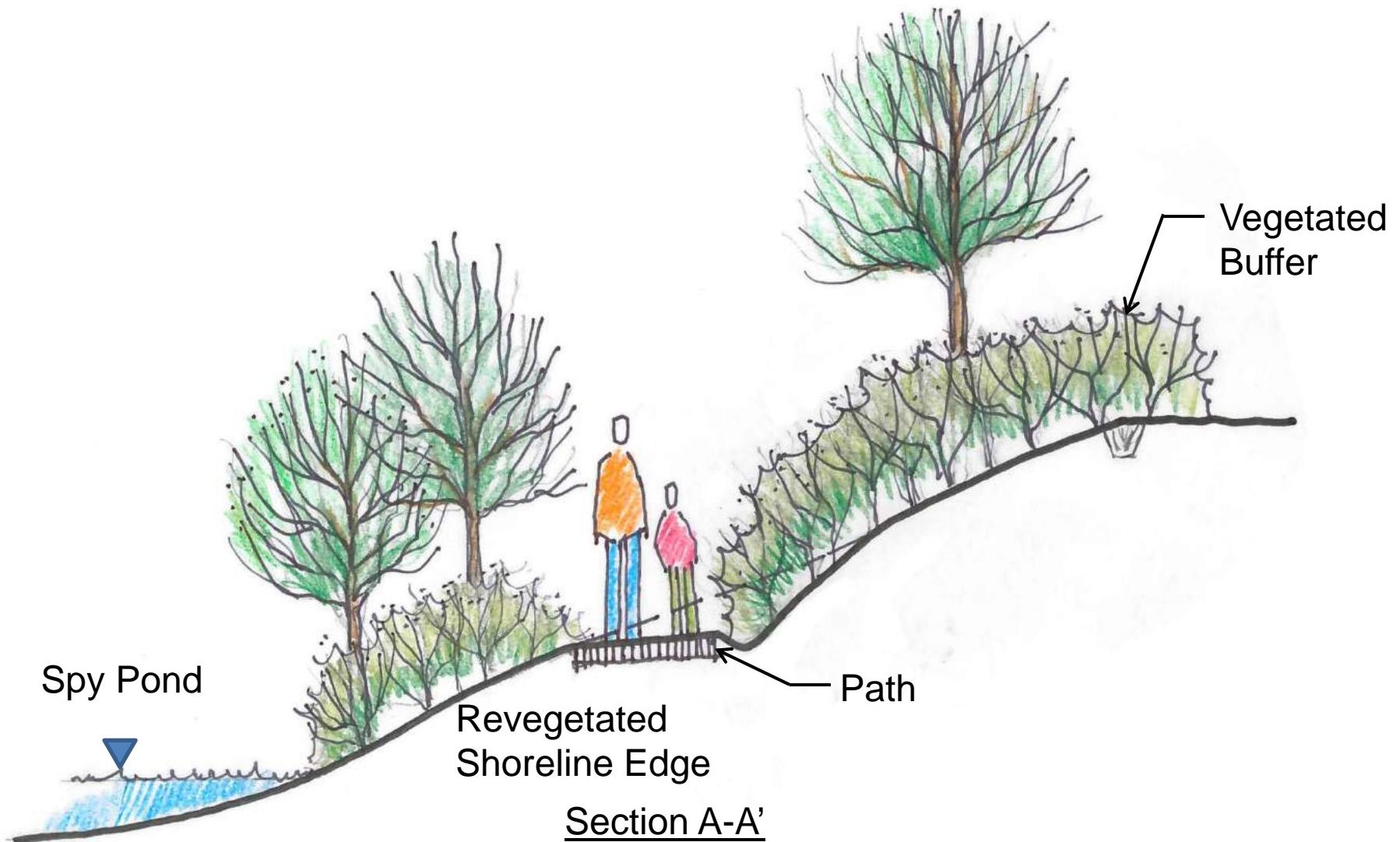


# Preferred Concept Boys & Girls Club



# Preferred Concept

## Boys & Girls Club



Shoreline path during construction (1996)



Three years later

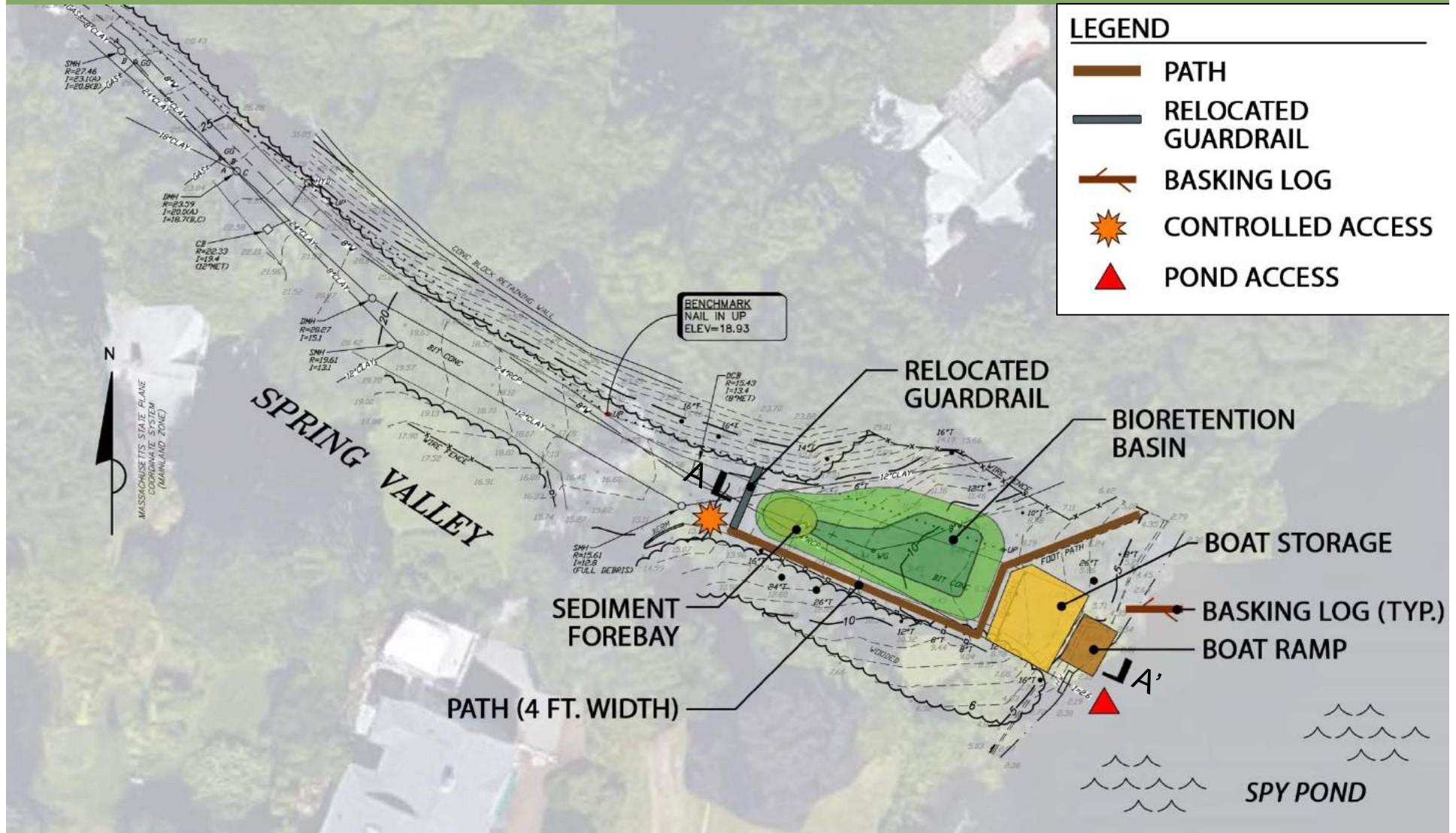


# Spring Valley Street



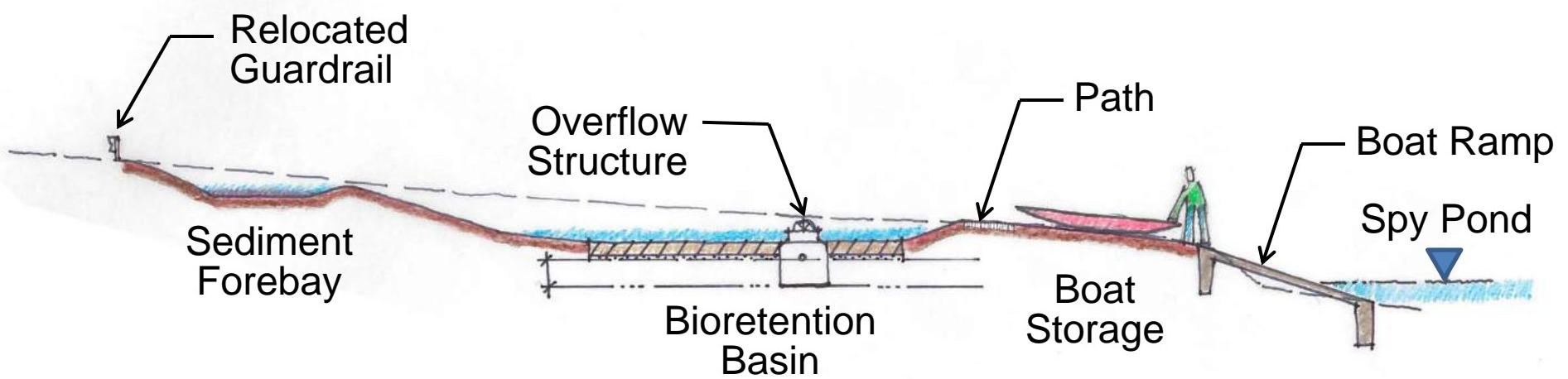
# Preferred Concept

## Spring Valley Street



# Preferred Concept

## Spring Valley Street



Section A-A'

# Shoreline Planting

## High Marsh Herbaceous Plants



Left to Right: *Eupatorium maculatum*, *Eupatorium perfoliatum*, *Juncus canadensis*, *Juncus effusus*



Left to Right: *Carex stipata*, *Carex vulpinodea*, *Caltha palustris*



Left to Right: *Hibiscus moscheutos*, *Scirpus cyperinus*, *Leersia oryzoides*

# Shoreline Planting

## Native Shrubs (Low to Medium)



Left to Right: *Spiraea tomentosa*, *Cornus sericea*, *Rosa palustris*



Left to Right: *Rhus aromatica*, *Clethra alnifolia*, *Photinia pyrifolia*

# Shoreline Planting

## Native Shrubs (Tall)



Left to Right: *Cornus amomum*, *Ilex verticillata*, *Cephalanthus occidentalis*



Left to Right: *Alnus rugosa*, *Vaccinium corymbosum*, *Salix discolor*

# Next Steps

## Final Concept Plan

- Permitting Schedule
- Maintenance Schedule
- Preliminary Estimate of Construction Costs
- CPA Funding Application for Phase 2

# Project Schedule

- July - December 2016 - Phase 1:  
Existing Site Analysis & Concept Plan
- December 2016: CPA Funding  
Application for Phase 2
- July 2017 - Phase 2: Construction  
Documents
- November 2017: Permit Applications
- February 2018: Project out to Bid
- April - August 2018: Construction

# Questions or Comments?

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Hilary Holmes, Project Manager

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Presentation will be posted on the  
Conservation Commission website